

I. It has not been scientifically established that cigarette smoking causes disease.

A. Statistical associations cannot prove cause and effect.

1. "Statistical methods cannot establish proof of a causal relationship in an association."

Smoking and Health, page 20 (Ex. 1)

2. "The most these data can do is to demonstrate the lack of or the existence of a relationship between cigarette smoking and various health characteristics; it cannot establish any existing relationship as a causal one.

If a relationship is found, there can be several possible explanations, for example:

(1) smoking actually causes a certain condition (or is one of a number of causes),

(2) the presence of a certain condition causes the person to smoke, or (3) some third factors, possibly psychologic or biologic, is causing both the condition and

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the smoking habit." [Statistics demonstrating a greater frequency of heart attacks in persons who had never smoked than in persons who smoked over a period of years and then stopped were said by Dr. Daniel Horn not to prove that it was healthy to start smoking and then quit but that, "having given up smoking is evidence of sufficient concern with their own health so that one might expect the same people to maintain proper dietary habits and adequate exercise habits, and thereby have a lower death rate." 1965 House Hearings on (Et. 3), the Cigarette Labeling Act, page 142A. In other words, people who quit smoking demonstrate that they are different from people who have never smoked. This is also exemplified, according to Dr. Joseph Berkson (who has been described as "the acknowledged Dean of American Medical Statisticians") by "the difference in death rate from all causes" between smokers and nonsmokers. This, says Dr. Berkson, "reflects a constitutional difference between smokers and nonsmokers. *The idea is*

**general theory of constitutional differences*

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Jones Bulletin
May June 1967
Confidential record,
Senate, June 16,
1965 (Ex. 4)

that

"nonsmokers or light smokers are of a constitutional type marked by self-protective habits, and one aspect of this constitutional makeup is that they have lower death rates."

{ "Cigarette Smoking and Health Characteristics",
published May 1, 1967, by the United States
Department of Health, Education and Welfare,
page 6 (Ex. 2)

B. Animal Experimentation.

1. The validity of animal experimentation in terms of human disease is acknowledged to be questionable.

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- a. "Assays of tobacco smoke tars for carcinogenicity are done by applying a dilute solution of tar in an organic solvent with a camel's hair brush to the backs of mice beginning when the animals are about six weeks old. Application is repeated three times a week for a period of a year or more. The results of a number of such assays

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"it has been pointed out many times
that animal experimentation cannot
be used as a direct measure of
the hazard to human beings associated
with an environmental agent." Dr.
George Moore, "Carcinogenic Activity of
Cigarette Smoke: Condensate," *J. Effect
of Tobacco and Related Substances*,
J. math. Cancer Res., 22(2), 401-11, Feb. 1959, p. 407 (47)

present a puzzling anomaly. . .

Assessment of all conceivable synergistic
effects (of cigarette smoke components)
presents a gigantic problem for explor-
ation." *Smoking and Health*, pages 58 and
59 (4, 5).

- b. "Animal experiments in the field of cancer can, at best, provide suggestive data but not definitive data, since it is well known that the carcinogenic effect of various agents is different for different species and, within species, for different tissues." PHS memo inserted in Congressional Record - Senate, June 16, 1965, by Senator Neuberger during discussion on Cigarette Labeling Bill, page 13437 (4, 6).
- c. Use Moore's earlier statement, see Wynder and Kinsler dispute and consider Stewart's remark during appropriation hearings.
- d. Quotation from Lancet (Alex will get). (8)

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"I would look at a lung as a pathology, and say disease is due to lung tissue is due to lung with smoke." Dr. Paul Kotin, H.E.W. House, Part I, p. 686 (4, 11)

2. If significant, animal experimentation to date has failed to demonstrate the production of lung cancer by inhalation of cigarette smoke.
 - a. "The production of bronchogenic carcinomas has not been reported by any investigator exposing experimental animals to tobacco smoke." *Smoking & Health*, p. 165 (4, 9)
 - b. * 1967 Surgeon General's Report -- same statement in essence.
- c. Clinical and pathological evidence has not established smoking as the cause of any disease.
 1. Use Kotin quote on lung cancers not being identifiable as caused by smoking or not.
 2. Use statements by Ober, Carnes, and Moran. ³⁴⁴⁻⁵ ⁷³⁷ ³⁰⁰ ¹⁰ *See also points*
 3. Wright on bronchitis and emphysema) coupled with statement on emphysema from Part II of 1967 Surgeon General's Report. ¹⁰ *See also points*
 4. Consider Framingham article. ¹⁰ *See also points*
 5. Consider Hammond's statement on atherosclerosis. ¹⁰ *See also points*

"It should be noted that this may never be achieved ... because of species' differences in cellular response." The Health Consequences of Smoking (1967 P.H.S. Review), p. 35-4, 10.

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III. It is conceded that no component of cigarette smoke has been proved responsible for any human disease.

A. Generally.

1. 1. Use Stewart's statement on no specific ingredient. *Part 4, p. 108*
2. "It is often suggested that specific toxic substances could be removed from tobacco thus making less dangerous cigarettes. At the present time, this approach is not immediately useful because we simply do not know just what specific agents are involved." *Moore, Vol. 1, p. 50*

B. "Tar" and nicotine.

1. Introduced by asking why Surgeon General Stewart would not endorse any specific low tar and nicotine cigarette. *Vol. 3, 315-316*
2. Use Hammond ~~for nicotine~~ as well as SGAC statement that nicotine probably does not represent any substantial health hazard *(E-, p. 2)*
3. Pick out certain of the statements made during the filter hearings which indicate complete confusion with respect to the significance to tar and nicotine. *best*

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paper)*

4. Short history of FTC and HEW "reversal"

C. Seltzer's paper appearing in the Annals of the New York Academy of Sciences, March, 1967, with respect to the fact that smokers and nonsmokers differ in

III. Review of some current studies.

A. Seltzer's paper appearing in the Annals of the New York Academy of Sciences, March, 1967, with respect to the fact that smokers and nonsmokers differ in

part 5,
p. 671

many ways as groups. [The plan is to use all post

1966 material if possible so as to show that there is

a continuing controversy.]

B. Lundman article on heart disease -- Swedish twin study.

C. Study in Israel showing not even a statistical association between smoking and lung cancer.

D. Rosenblatt article appearing in the August 1967 issue of Medical Science. The authors raise a number of questions "that must be answered if we are to understand the origin of lung cancer." This article sets forth most of the traditional arguments.

E. Tecumseh -- The heart study described generally in the HEW response.

F. Others.

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